Abstract

Name:

Nordic Walking as a means of weight reduction and physical fitness improvement.

Aims:

First we wanted to find out whether Nordic Walking is a suitable means for improving physical fitness and as such can be used to help to improve quality of life of senior and obese persons. Second aim was to test whether Nordic Walking intervention can be utilized to reduce body mass of obese persons without changing their dietary habits.

Method:

We performed an eleven-weeks lasting study to support the theoretical part of the thesis. We chose two probands in the age of 77 and 63 years. The younger one was obese with the BMI value of 39,5. Dietary and exercise habits of probands were monitored. In the laboratory, we evaluated body composition and physical fitness using the multi-frequency bio-impedance analysis and the treadmill. The intervention was designed based on the obtained results. It consisted of three 20-minutes units per week. The duration was extended every two weeks by 5 minutes. Intensity was set to the level of 85-90% SFpeak. Change of dietary habits wasn't included into the intervention.
The effect of the intervention was assessed in the laboratory prior, during, and after the intervention. Intervention increased work metabolism by 38.5% of the obese person and 25.2% of the other one.

Results:

Both intervened persons were able to follow the intervention. Nordic Walking is suitable for the elderly and obese people. The study led to significant improvements in the physical fitness and to body mass reduction of both persons, and it suited them subjectively. Physical fitness estimated by oxygen consumption improved by cca 24% for both probands. Values of oxygen consumption of the obese person decreased from 2,085 l/min to 1.57 l/min between second and third laboratory measurements. Values of oxygen consumption of the older person decreased from 1.38 l/min to 1.05 l/min between second and third laboratory measurement. The weight of both probands was reduced by cca 4 kg. Obese person weighed 105.5 kg before and 101.8 kg after the intervention. The body mass of the second person dropped from 63.2 kg before the to 59.3 kg. BMI value of the obese person decreased from 39.5 to 38, the BMI of the second person decreased from 25,2 to 23,6.
We concluded that Nordic Walking is suitable as a means to increase fitness of elderly and obese people and to reduce overweight and obesity.

Keywords:

Nordic Walking, obesity, senior, physical fitness, weight